

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit : Not Yet Known  
Examiner : Not Yet known  
Serial No. : 10/720,707  
Filed : November 24, 2003  
Inventors : Henry Daniell  
: Bruce A. McFadden  
Title : GENETIC ENGINEERING  
: OF PLANT CHLOROPLASTS



22469

Docket No. 1202-CON2-DIV-00

Date: March 9, 2004

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**Certificate of Mailing Under 37 CFR 1.8**

For

Postcard  
Information Disclosure Statement  
Form PTO-1449  
Copies of References Cited

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date appearing hereon.

Name of Applicant, Assignee, Applicant's Attorney  
or Registered Representative:

Schnader Harrison Segal & Lewis LLP  
Customer No. 022469

By: \_\_\_\_\_

*Debra G. Hill*

Date: \_\_\_\_\_

*3/9/04*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit: Not Yet Known  
Examiner: Not Yet known  
Serial No.: 10/720,707  
Filed: November 24, 2003  
Inventors: Henry Daniell  
Bruce A. McFadden  
Title: GENETIC ENGINEERING  
OF PLANT CHLOROPLASTS



22469

Docket No. 1202-CON2-DIV-00

Date: March 9, 2004

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450


Sir:

We submit herewith the Form PTO-1449 together with copies of publications listed therein. They are submitted to comply with the Applicants' duty of disclosure under 37 C.F.R. §1.56 and are believed related to this application.

We are submitting this in the spirit of voluntary disclosure.

It is accordingly requested that the Information Disclosure Statement be officially entered in the file of this case and that appropriate notification be made that it was considered in the prosecution of the case.

Respectfully submitted,

By:   
SCHNADER HARRISON SEGAL & LEWIS LLP  
Gérard J. Weiser  
Reg. No. 19,763  
Tel: 215-751-2811  
E-mail: gweiser@schnader.com  
Stephenie W. Yeung  
Reg. No. 48,052  
Tel: 215-751-2277  
E-mail: syeung@schnader.com  
1600 Market Street, Suite 3600  
Philadelphia, Pennsylvania 19103  
Facsimile: 215-751-2205  
Attorneys for Applicant

GW/SWY:dh

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
1202-CON2-DIV-00SERIAL NO.  
10/720,707

## BEST OF PRIOR ART CITED BY APPLICANT

(Use several sheets if necessary)

## APPLICANTS

Daniell and McFadden

## FILING DATE

November 24, 2003

## GROUP

Not yet known

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL*		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A	5	4	5	1	5	1	3	9/19/95	Maliga et al.			8/25/93

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	B	0 251 654	1/7/88	EPO			X	
	C	WO 86/03516	6/19/86	PCT			X	
	D	GB2183660A	6/10/87	UK				

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

E	Bishop, N.G. and Field, R.J., "Improved performance of glyphosate in the full season control of perennial Ryegrass", Aspects of Applied Biology, 4, 363-370 (1983).
F	Daniell, Henry, "Transformation and Foreign Gene Expression in Plants Mediated by Microprojectile Bombardment, "Methods in Molecular Biology", Vol. 62, pps. 463-489 (1977).
G	Christou, Paul, "Particle Bombardment Technology for Gene Transfer", Application to Plants, pp., 71-99. Oxford University Press, 1994
H	Svab et al., "Stable Transformation of Plastids in Higher Plants", Proc. Natl. Acad. Sci., USA 87, 8526-8530.
I	Chasan, R., " Taming the Plastid Genome", Plant Cell 4(1):1-2, 1/1992.
J	Medayesy, P., pp. 307-313, Plant Cell Line Selection, Dix, ed., VCH: Weinheim.
K	Herrera-Estrella et al., "Light-Inducible and Chloroplast-Associated Expression of a Chimaeric Gene Introduced into Nicotiana Tabacum Using a Ti Plasmid Vector", Nature 310, 1984, pp. 115-120.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.  
Include copy of this form with next communication to Applicant.

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 1202-CON2-DIV-00		SERIAL NO. 10/720,707						
<b>LIST OF PRIOR ART CITED BY APPLICANT</b> <i>(Use several sheets if necessary)</i>				APPLICANTS Daniell and McFadden								
				FILING DATE November 24, 2003		GROUP Not yet known						
<b>U.S. PATENT DOCUMENTS</b>												
EXAMINER INITIAL*		DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<b>FOREIGN PATENT DOCUMENTS</b>												
		DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
												YES    NO
<b>OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>												
	L	Schultz, A., et al., "Genetic Engineering of Herbicide Resistance in Higher Plants", Plant Sciences, Vol. 9, Issue 1, pps. 1-15 (1990).										
	M	Boynton, et al., "Chloroplast Transformation in Chlamydomonas with High Velocity Microprojectiles", Science 240: 1534-1538 (1988).										
	N	Daniell, H., "Foreign Gene Expression in Chloroplasts of Higher Plants Mediated by Tungsten Particle Bombardment", Methods in Enzymology, Vol. 217, pp. 536-556, (Academic Press, 1993).										
	O	Sugita, et al., "Regulation of Gene Expression in Chloroplast of Higher Plants", Plant Molecular Biology, 32, pp. 315-326, 1996.										
	P	DeBlock et al., "Chloroplast Transformation by Agrobacterium Tumefaciens", EMBO J. 4(6): 1367-1372, 1985.										
	Q	Link, G., "Photoregulated Development of Chloroplasts", Cell Culture and Somatic Cell Genetics of Plants, Vol. 7B., pp. 365-394, (Academic Press, Inc., 1991).										
	R	Bradley et al., "Multinational Analysis of the Maize Chloroplast ATPase- $\beta$ Subunit Gene Promoter: The Isolation of Promoted Mutants in E. coli and their Characterization in a Chloroplast <i>in vitro</i> Transcription System", EMBO J., 4, No. 13B, 3641-3648, 1985.										
	S	Overbeeke et al., "Cloning of <i>Petunia Hybrida</i> Chloroplast DNA Sequences Capable of Autonomous Replication in Yeast", Plant. Mol. Biol. 3:235-241, 1984.										
EXAMINER									DATE CONSIDERED			
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.</p> <p>Include copy of this form with next communication to Applicant.</p>												

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY. DOCKET NO. 1202-CON2-DIV-00		SERIAL NO. 10/720,707						
<b>LIST OF PRIOR ART CITED BY APPLICANT</b> <i>(Use several sheets if necessary)</i>					APPLICANT Daniell and McFadden								
					FILING DATE November 24, 2003		GROUP Not yet known						
<b>U.S. PATENT DOCUMENTS</b>													
EXAMINER INITIAL*		DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
<b>FOREIGN PATENT DOCUMENTS</b>													
		DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
												YES	NO
<b>OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>													
	T	Daniell, et al., "Transient Foreign Gene Expression in Chloroplasts of Cultured Tobacco Cells After Biolistic Delivery of Chloroplast Vectors" , Proc. Natl. Acad. Sci. USA 87, pp. 88-92., Jan.1990.											
	U	Overbeeke et al., Cloning of <i>Petunia Hybrida</i> Chloroplast DNA Sequence Capable of Autonomous Replication in Yeast", Plant Mol. Biol., 3: 235-241 (1984).											
	V	Klein et al., "High-Velocity Microprojectiles for Delivering Nucleic Acids into Living Cells", Nature 327: pp. 70-73, May 1987.											
	W	Houwink et al., "Isolation of Autonomously Replicating Sequences (ARS's) From <i>PETUNIA HYBRIDA</i> Chloroplast DNA": A First Step in the Construction of Plant Cell Organelle Vectors", Progress in Industrial Microbiology 20, pp. 461-468, 1984.											
	X	Ye, et al., "Optimization of Delivery of Foreign DNA into Higher-Plant Chloroplast", Plant Mol. Biology, Vol. 15, pp. 809-819, 1990											
	Y	Johnson, et al. "Mitochondrial Transformation in Yeast by Bombardment with Microprojectiles", Science, Vol. 240, pp. 1538-1541, June 1988.											
	Z	Blowers, et al. "Studies on <i>Chlamydomonas</i> Chloroplast Transformation: Foreign DNA Can be Stably Maintained in the Chromosome", The Plant Cell, Vol. 1, pp. 123-132, January 1989.											
EXAMINER								DATE CONSIDERED					
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.</p> <p>Include copy of this form with next communication to Applicant.</p>													

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				ATTY. DOCKET NO. 1202-CON2-DIV-00		SERIAL NO. 10/720,707				
<b>LIST OF PRIOR ART CITED BY APPLICANT</b> <i>(Use Several sheets if necessary)</i>						APPLICANT Daniell and McFadden						
						FILING DATE November 24, 2003		GROUP Not Yet Known				
<b>U.S. PATENT DOCUMENTS</b>												
EXAMINER INITIAL*		DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<b>FOREIGN PATENT DOCUMENTS</b>												
<b>OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>												
	AA	Medgyesy et al., "Interspecific Chloroplast Recombination in a <i>Nicotiana</i> Somatic Hybrid", Proc. Natl. Acad. Sci. USA, Vol. 82, pp. 6960-6964, October 1985.										
	AB	Meeker, et al., "Localization of Replication Origins in PEA Chloroplast DNA", Molecular and Cellular Biology, Vol. 8, No. 3, pp. 1216-1223, March 1988.										
	AC	Nagley, et al., "Leading Organellar Proteins Along New Pathways: The Relocation of Mitochondrial and Chloroplast Genes to the Nucleus, TIBS 14 pp. 31-35, January 1989.										
	AD	Hanley-Bowdoin, et al., "Chloroplast Promoters", TIBS 12, pp. 67-70, February 1987.										
	AE	H. Lorz, "Isolated Cell Organelles and Subprotoplast: Their roles in Somatic Cell Genetics", Plant Genetic Engineering (Cambridge University Press), 4: 27-59.										
	AF	Daniell, et al., "Uptake and Expression of Bacterial and Cyanobacterial Genes by Isolated Cucumber Etioplasts", Proc. Natl. Acad. Sci. USA, Vol 84 pp 6349-6353, September 1987.										
EXAMINER								DATE CONSIDERED				

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.